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OCT 23 2002

U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Mail Stop OP1-17
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
SUPPLEMENT NO. 1 TO PROPOSED AMENDMENT NO. 247 TO UNIT 1 LICENSE NO. NPF-14 AND PROPOSED AMENDMENT NO. 212 TO UNIT 2 LICENSE NO. NPF-22: REVISION TO THE RPV MATERIAL SURVEILLANCE PROGRAM
PLA-5528

Docket Nos. 50-387 and 50-388

Reference: 1) Letter from W. H. Bateman (USNRC) to C. Terry (BWRVIP Chairman) titled, "Safety Evaluation Regarding EPRI Proprietary Report 'BWR Vessel and Internals Project, BWR Integrated Surveillance Program Plan (BWRVIP-78)' and 'BWRVIP-86: BWR Vessel and Internals Project, BWR Integrated Surveillance Program Implementation Plan,'" dated February 1, 2002.

2) Regulatory Issue Summary No. 2002-05, "NRC Approval of Boiling Water Reactor Pressure Vessel Integrated Surveillance Program," dated April 8, 2002.

3) PLA-5498 from R. L. Anderson to USNRC Document Control Desk titled, "Proposed Amendment No. 247 to Unit 1 License No. NPF-14 and Proposed Amendment No. 212 to Unit 2 License No. NPF-22: Revision to the RPV Material Surveillance Program," dated July 25, 2002.

The purpose of this letter is to respond to NRC Staff's questions on our proposed changes to the Susquehanna Steam Electric Station Final Safety Analysis Report (Susquehanna SES FSAR) for Unit 1 and Unit 2. This proposed change revises the Reactor Pressure Vessel Material Surveillance Program in accordance with References 1 and 2. This letter supercedes Reference 3.

A008
A053

At the request of the NRC staff, Supplement 1 revised the following:

- The Technical Analysis in Attachment 1 was revised to clearly state that the methodology used to recalculate the fluence calculations will be in accordance with the requirements of Regulatory Guide 1.190.
- FSAR Section 4.1.4.5 was revised to state that revisions to the fluence calculations will use NRC approved methodology that meets Regulatory Guide 1.190.
- FSAR Section 5.3 and Tables 5.3-1b, 5.3-2b and 5.3-3 were revised to state that the Integrated Surveillance Program consists of BWRVIP-86, BWRVIP-78, the BWRVIP responses to NRC RAIs dated December 22, 2001 and May 30, 2001, and NRC's Safety Evaluation dated February 1, 2002.

Supplement 1 did not change the No Significant Hazards Considerations and Environmental Assessment from the previous submittal.

Attachment 1 to this letter is the "Safety Assessment" supporting this change.

Attachment 2 is the No Significant Hazards Considerations evaluation performed in accordance with the criteria of 10 CFR 50.92 and the Environmental Assessment.

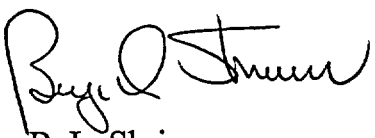
Attachment 3 to this letter contains the applicable pages of the Susquehanna SES FSAR for Unit 1 and Unit 2, marked to show the proposed change.

Consistent with the process established between the NRC and the BWRVIP, this change is being processed as a license amendment to facilitate NRC review and approval.

PPL plans to implement the proposed changes in the Spring of 2003 to support deletion of work from the Unit 2 11th Refueling and Inspection Outage. Therefore, we request NRC complete its review of this change by December 1, 2002 with the changes effective 30 days after approval.

Any questions regarding this request should be directed to Mr. Cornelius T. Coddington at (610) 774-4019.

Sincerely,



B. L. Shriver

Attachments: Affidavits
Attachment 1 - Safety Assessment - Revision to the Reactor Pressure Vessel Material Surveillance Program
Attachment 2 - No Significant Hazards Considerations and Environmental Assessment
Attachment 3 - Final Safety Analysis Report Mark-Ups

copy: NRC Region I
Mr. D. J. Allard, PA DEP
Mr. S. L. Hansell, NRC Sr. Resident Inspector
Mr. E. M. Thomas, NRC Project Manager
Mr. R. Janati, DEP/BRP

BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

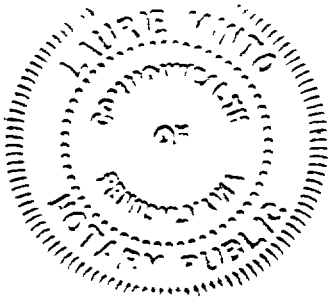
In the Matter of :

PPL Susquehanna, LLC: Docket No. 50-387

SUPPLEMENT NO. 1 TO PROPOSED AMENDMENT NO. 247 TO LICENSE NPF-14:
REVISION TO THE REACTOR PRESSURE VESSEL
MATERIAL SURVEILLANCE PROGRAM
UNIT NO. 1

Licensee, PPL Susquehanna, LLC, hereby files a revision to its Facility Operating License No. NPF-14 dated July 17, 1982.

This amendment involves a revision to the Susquehanna SES Final Safety Analysis Report Specifications.



PPL Susquehanna, LLC
By:

B. L. Shriver
Sr. Vice-President and Chief Nuclear Officer

Sworn to and subscribed before me
this 23rd day of October, 2002.

Laurie Minto
Notary Public

Notarial Seal
Laurie Minto, Notary Public
Salem Twp., Luzerne County
My Commission Expires July 24, 2006
Member, Pennsylvania Association of Notaries

BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of :

PPL Susquehanna, LLC: Docket No. 50-388

SUPPLEMENT NO. 1 TO PROPOSED AMENDMENT NO. 212 TO LICENSE NPF-22:
REVISION TO THE REACTOR PRESSURE VESSEL
MATERIAL SURVEILLANCE PROGRAM
UNIT NO. 2

Licensee, PPL Susquehanna, LLC, hereby files a revision to its Facility Operating License No. NPF-22 dated March 23, 1984.

This amendment involves a revision to the Susquehanna SES Final Safety Analysis Report.

PPL Susquehanna, LLC
By:

B. L. Shriver
Sr. Vice-President and Chief Nuclear Officer

Sworn to and subscribed before me
this 23rd day of October, 2002.

Laurie Minto
Notary Public

Notarial Seal
Laurie Minto, Notary Public
Salem Twp., Luzerne County
My Commission Expires July 24, 2006
Member, Pennsylvania Association of Notaries

Attachment 1 to PLA-5528

Safety Assessment
Revision to the Reactor Pressure Vessel Material Surveillance Program

Safety Assessment

Revision to the Reactor Pressure Vessel Material Surveillance Program

The following provides the basis for the proposed revision to the reactor pressure vessel material surveillance program.

1.0 DESCRIPTION OF THE PROPOSED CHANGE

PPL Susquehanna, LLC (PPL) proposes to revise the licensing basis for Susquehanna Steam Electric Station Units 1 and 2 (SSES) by replacing the current plant-specific reactor pressure vessel (RPV) material surveillance program with the Boiling Water Reactor (BWR) Integrated Surveillance Program (ISP), which was approved by the NRC in its Safety Evaluation (SE) dated February 1, 2002 (Reference 1). The proposed revision to the SSES Final Safety Analysis Report reflecting this change is provided for information in Attachment 3.

2.0 REASON FOR THE PROPOSED CHANGE

The BWR ISP was developed in response to an issue raised by the NRC staff regarding the potential lack of adequate unirradiated baseline Charpy V-notch (CVN) data for one or more materials in plant-specific RPV surveillance programs at several BWRs. The lack of baseline properties would inhibit a licensee's ability to effectively monitor changes in the fracture toughness properties of RPV materials in accordance with Appendix H to 10 CFR 50. The BWR ISP, as approved by the NRC, resolves this issue.

Implementation of the ISP will provide additional benefits. When the original surveillance materials were selected for plant-specific surveillance programs, the state of knowledge concerning RPV material response to irradiation and post-irradiation fracture toughness was not the same as it is today. As a result, many facilities did not include what would be identified today as the plant's limiting RPV materials in their surveillance programs. Hence, this effort to identify and evaluate materials from other BWRs, which may better represent a facility's limiting materials, should improve the overall evaluation of BWR RPV embrittlement. Second, the inclusion of data from the testing of BWR Owners' Group (BWROG) Supplemental Surveillance Program (SSP) capsules will improve the overall quality of the data being used to evaluate BWR RPV

embrittlement. Finally, implementation of the ISP is also expected to reduce the cost of surveillance testing and analysis since surveillance materials that are of little or no value (either because they lack adequate unirradiated baseline CVN data or because they are not the best representative materials) will no longer be tested.

3.0 TECHNICAL ANALYSIS

Reference 1 concludes that the proposed ISP, if implemented in accordance with the conditions in the SE, has been determined to be an acceptable alternative to all existing BWR plant-specific RPV surveillance programs for the purpose of maintaining compliance with the requirements of Appendix H to 10 CFR Part 50 through the end of current facility 40 year operating licenses. Reference 1 requires that each licensee (1) provide information regarding what specific neutron fluence methodology will be implemented as part of participation in the ISP and (2) address the neutron fluence methodology compatibility issue as it applies to the comparison of neutron fluences calculated for its RPV versus the neutron fluences calculated for surveillance capsules in the ISP which are designated to represent its RPV. This information is provided in the following discussion.

The SSES Technical Specifications, as discussed in Amendment No. 200 to SSES Unit 1 Operating License (NPF-14) and Amendment No. 174 to SSES Unit 2 Operating License (NPF-22) require that new P-T curves be implemented based on updated fluence calculations by May 1, 2005 and May 1, 2006 (Unit 2 and Unit 1 respectively). See Reference 2 for additional information. The methodology used for the recalculation of the fluence will be in accordance with the requirements of Regulatory Guide 1.190.

PPL intends to use the BWRVIP RAMA code or other NRC approved methodology that meets Regulatory Guide 1.190 to revise the calculations for both Units 1 and 2. The RAMA code will perform a full 3D-neutron transport solution to determine fluence within the vessel. The analysis will use the BUGLE-96 data library as recommended by Regulatory Guide 1.190. It will perform a full uncertainty analysis to determine the accuracy of the calculation. The Susquehanna SES FSAR will be updated to include reference to the requirements of Regulatory Guide 1.190 when the new fluence calculation methodology is utilized.

The BWRVIP's anticipated schedule for completion of the BWRVIP RAMA code is December 2002. The BWRVIP intends to submit a topical report on the RAMA code to the NRC for review, with the objective of receiving a safety evaluation in 2003 approving use of the methodology.

The first surveillance capsule to be tested under the ISP is the River Bend 183° capsule. The test report is scheduled to be submitted to the NRC by February 2003. Coincidentally, these capsules, according to the ISP, are the substitute capsules for SSES Unit 2. Thus in accordance with the ISP, the SSES Unit 2 capsule will not be removed and tested.

The ISP requires the Unit 1 surveillance capsules be removed in 2012 and tested in 2013. The Unit 1 fluence calculations will be reevaluated both in 2006 and after this ISP testing.

REFERENCES:

1. Letter, W. H. Bateman (USNRC) to C. Terry (BWRVIP Chairman), "Safety Evaluation Regarding EPRI Proprietary Report 'BWR Vessel and Internals Project, BWR Integrated Surveillance Program Plan (BWRVIP-78)' and 'BWRVIP-86: BWR Vessel and Internals Project, BWR Integrated Surveillance Program Implementation Plan'", dated February 1, 2002.

2. Letter, D. S. Collins (USNRC) to R. G. Byram (PPL), "Susquehanna Steam Electric Station Units 1 and 2 – Issuance of Amendment RE: Reactor Pressure Vessel Pressure-Temperature Limit Curves", dated February 7, 2002.

Attachment 2 to PLA-5528

No Significant Hazards Considerations and Environmental Assessment

No Significant Hazards Considerations and Environmental Assessment

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

PPL proposes to revise the licensing basis for SSES by replacing the plant-specific RPV material surveillance program with the BWR ISP. This change is acceptable because the BWR ISP has been approved by the NRC staff as meeting the requirements of paragraph III.C of Appendix H to 10 CFR 50 for an integrated surveillance program.

In accordance with the criteria set forth in 10 CFR 50.92, PPL has evaluated the proposed TS change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion.

1. ***Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?***

   No. The proposed change implements an integrated surveillance program that has been evaluated by the NRC staff as meeting the requirements of paragraph III.C of Appendix H to 10 CFR 50. Consequently, the proposed change does not significantly increase the probability of any accident previously evaluated. The proposed change provides the same assurance of RPV integrity. As a result, the consequences of any accident previously evaluated are not significantly increased. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. ***Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?***

   No. The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods governing normal plant operation. The proposed change maintains an equivalent level of RPV material surveillance and does not introduce any new accident initiators. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. ***Does the proposed change involve a significant reduction in a margin of safety?***

   No. The proposed change has been evaluated as providing an acceptable alternative to the plant-specific RPV material surveillance program that meets the requirements of the regulations for RPV material surveillance. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

ENVIRONMENTAL CONSIDERATION

10 CFR 51.22(c)(9) identifies certain licensing and regulatory actions, which are eligible for categorical exclusion from the requirement to perform an environmental assessment. A proposed amendment to an operating license for a facility does not require an environmental assessment if operation of the facility in accordance with the proposed amendment would not (1) involve a significant hazards consideration; (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; or (3) result in a significant increase in individual or cumulative occupational radiation exposure. PPL has evaluated the proposed change and has determined that the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Accordingly, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with issuance of the amendment. The basis for this determination, using the above criteria, follows:

Basis

1. As demonstrated in the No Significant Hazards Consideration Evaluation, the proposed amendment does not involve a significant hazards consideration.

2. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite. The proposed change does not involve any physical alteration of the plant (no new or different type of equipment will be installed) or change in methods governing normal plant operation.

There is no significant increase in individual or cumulative occupational radiation exposure. The proposed change does not involve any physical alteration of the plant (no new or different type of equipment will be installed) or change in methods governing normal plant operation.